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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PHAN, TRONG Q

ART UNIT	PAPER NUMBER
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2818

DATE MAILED: 07/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/899,413

Applicant(s)

HATHAWAY ET AL.

Examiner

TRONG PHAN

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,2 and 4-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on 7/3/03 have been approved.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the setup test as recited in claims 5, 10, 26 and 32 and the hold test as recited in claim 6, 13, 26 and 32 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-2 and 4-35 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification fails to comply with the enablement requirement as follow:

a) it is not understood how the idealized clock and gate signal waveforms as shown in Figs. 2-3 are associated with the output signal 120 in Fig. 1 since the output signal 120 waveform is not shown,

b) it is not understood what the setup tests, hold tests, AT test and clock gating test (as described in lines 13-17, page 15; lines 13, 16 and 18, page 17; lines 10, 14, 19 and 22, page 18; lines 9, 12-13, 17-18 and 21, page 22; line 12, page 23 and as recited in claims 5-6, 10 and 20), really are. Since no test circuit or test means or test signal is seen in any drawing of the present invention;

c) all computations as described from line 9, page 18 through line 20, page 25 of the specification are not understood since it is not understood how the ATgate, delay gate, Slewgate/2, factor K, ATclock and Slewclock are generated. These elements are also not shown in any drawing of the present invention.

e) it is not understood what the lower input of AND gate 800 in Fig. 8 of the present invention really is.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-2, 5, 11-13, 17-19, 24, 26, 30 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 11, 17, 24 and 30, it is not clear how the step of modifying a timing of a sensing of said first-type of signal to sense said first-type of signal at an earlier point

in time than said second-type of signal is sensed. Since if the first-type of signal and the second-type of signal are, respectively, the trailing edge and the falling edge of gate signal as recited in claims 2, 12 and 18 or of the clock signal as recited in claims 13 and 19, then, the sensing point with respect to the time is not seen in any drawing of the present invention. Only Fig. 6B of the present invention does show the sensing point 600 in the middle of **the trailing edge** (not falling edge) of clock signal being modified to move earlier than the sensing point 600 in the middle of the **trailing edge** (not falling edge) of clock signal in Fig. 6A.

Claims 5, it is not clear how the sensing time is used for computing a setup test since there is no means for computing a setup test shown in the drawings of the invention.

Claim 6, it is not clear how the sensing time is used for computing a hold test since there is no means for computing a hold test shown in the drawings of the invention.

Claims 26 and 32, it is not clear how the sensing time is used for computing a setup test and a hold test since there is no means for computing a setup test and a hold test shown in the drawings of the invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1-2 and 4-23 are, insofar as understood, rejected under 35 U.S.C. 102(a) as being anticipated by Wu, 6,167,001.

Wu, 6,167,001, discloses in Fig. 1 Prior Art a testing system 10 for measuring setup and hold times for microelectronic device 16 which comprises a D-type flip-flop having a data input signal D, a clock input signal C and a positive logic output signal Q; as shown in Fig. 2, the generation of leading edge of data input signal D is at a relative time T1 which is delayed about a delay time D1 relative with the time T0 at which the leading edge of the clock input signal C is generated such that the output signal Q will accurately appear (see lines 20-27, column 2); as shown in Fig. 3, the sensing point T0 of the leading edge of clock input signal C being sensed earlier with respect to the sensing point T2 of leading edge of the data input signal D about a delay time of D3 smaller than D1 such that the output signal Q will be disappeared (transition inhibited) as indicated by the broken line (see lines 28-32, column 2).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Response to Arguments

10. Applicant's arguments filed on 7/3/03 have been fully considered but they are not persuasive because of the following reasons:

A) the output signal 120 waveform, the setup tests, hold tests, AT test and clock gating test (as described in lines 13-17, page 15; lines 13, 16 and 18, page 17; lines 10, 14, 19 and 22, page 18; lines 9, 12-13, 17-18 and 21, page 22; line 12, page 23 and as recited in claims 5-6, 10 and 20), are still not shown in the drawings of the present invention and described in the specification; all computations as described from line 9, page 18 through line 20, page 25 of the specification are still not understood since the ATgate, delay gate, Slewgate/2, factor K, ATclock and Slewclock are still not shown in drawings of the present invention; the lower input of AND gate 800 in Fig. 8 of the present invention is still not described in the specification.

Accordingly, the rejection of claims 1-2 and 4-35 under USC 112, first and second paragraphs, as set forth above are still proper and are made FINAL;

B) Wu, 6,167,001, does clearly disclose in Fig. 3, the sensing point T0 of the leading edge of clock input signal C being sensed earlier with respect to the sensing point T2 of leading edge of the data input signal D about a delay time of D3 smaller than

D1 such that the output signal Q will be disappeared (transition inhibited).

Accordingly, the rejection of claims 1-2 and 4-35 under 102(a) as being anticipated by Wu, 6,167,001, as set forth above is still proper and is made FINAL.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRONG PHAN whose telephone number is (703) 308-4870. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (703) 308-4910. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-4021 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Trong Phan

TRONG PHAN
PRIMARY EXAMINER

July 30, 2003